



United States Department of the Interior

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EA No. OR128-02-15

Dear Interested Party:

The Coos Bay District of the Bureau of Land Management has prepared an Environmental Assessment (EA OR128-02-15) analyzing downed log skidding and yarding from utility corridors and a blowdown site, and the hauling thereof. The project area is located on BLM-administered land in the East Fork of the Coquille River in Coos County, Oregon, within: T.28S., R.11 W., Section 11; T.28S., R.9W., Section 17; and T.28S., R.11W., Section 13.

Through this project, we intend to accumulate logs for fish habitat improvement and restoration projects. Through the EA, we evaluated the effects skidding the downed logs with a dozer, yarding the logs, and the loading and hauling of the logs.

This action is consistent with the *Coos Bay District Record of Decision and Resource Management Plan* dated May 1995, the *Final Supplement Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl and its Record of Decision and Standards and Guidelines* (1994), applicable aspects of NMFS' August 8, 2001 Biological Opinion, and in addition, the proposed project would not hinder or prevent attainment of Aquatic Conservation Strategy objectives.

The Environmental Assessment concludes in a Finding of No Significant Impact (FONSI). A copy of the EA and FONSI are attached for your review. Public comments on the appropriateness of the FONSI are being requested until June 20, 2002, at which time the Decision Record will be finalized. Comments, including names and street addresses of respondents, will be available for public review at the Coos Bay District Office, 1300 Airport Lane, North Bend, OR during regular business hours (7:30 am to 4:30 pm), Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosures under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety. Questions should be directed to Pam Olson at (541) 756-0100. Written comments may be sent to the BLM at: 1300 Airport Lane, North Bend, OR 97459-2000, Attn: Pam Olson, or e-mailed to us at: coos_bay@or.blm.gov attn: Pam Olson.

Sincerely,

/s/ Rich Conrad
Rich Conrad
Myrtlewood Field Manager

Finding of No Significant Impact (FONSI)
for
EA No. OR128-02-15

Log Yarding and Skidding

Bureau of Land Management, Coos Bay District, Myrtlewood Field Office

The Bureau of Land Management (BLM), Coos Bay District, has analyzed a proposal to skid, yard and haul logs from two powerline corridors and a blowdown site. The project is within the Coos Bay District Myrtlewood Field Office boundaries. Alternative I (No Action) and Alternative II (Proposed Action) are described in the Environmental Assessment (EA) OR128-02-15.

The EA is tiered to the *Coos Bay District Final Proposed Resource Management Plan and Environmental Impact Statement* (BLM, September 1994) (RMP), the accompanying *Record of Decision* (BLM, May 1995)(ROD), and the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (Interagency, February 1994) (FSEIS; Northwest Forest Plan), its *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*, and accompanying *Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (Interagency, April 1994).

The proposed project conforms with the Aquatic Conservation Strategy (ACS) objectives as described in the *Standards and Guidelines (S&G's, pp. B-9 through B-34) of the Northwest Forest Plan*. Watershed analyses has been completed in the area where the project is located.

Alternative II (Proposed Action) meets the project description in the FY 96-2002 Programmatic Projects, Coos Bay District Biological Assessment (C96-01b) which has been reviewed by the U.S. Fish and Wildlife Service (USFWS) through the consultation process provided under Section 7(A)(4) of the Endangered Species Act of 1973 [16 U.S.C. 1536(A)(2) and (A)(4) as amended]. The project has been designed to minimize disturbance effects on the northern spotted owl and marbled murrelet by incorporating the appropriate Project Design Criteria from the 1998 Coos Bay District Biological Opinion (US Fish and Wildlife Service 1998, # 1-7-98-F-079). The Biological Opinion is available for review at the Coos Bay District Office of the BLM.

Within the Biological Opinion (BO) for the programmatic actions issued on August 8, 2001, is an incidental take statement (ITS). In addition, NMFS included EFH consultation in the Opinion, and incorporated all of the reasonable and prudent measures and the terms and conditions from the Opinion as EFH conservation recommendations. This project is consistent with the BO.

The Environmental Consequences described in Chapter 4 of the EA are based on research, professional judgement, and the experiences of the Interdisciplinary Team members. The proposed action is expected to cause no significant adverse impacts to the human environment.

There would be no effect on the following Critical Elements of the Human Environment that are present within the project area:

Soil Productivity and Capability (includes erodibility and mass failure)
Air Quality

Land Use: Riparian Reserves
Infrastructure Improvements: Roads
Survey and Manage species plants
T & E Wildlife Species (Marbled Murrelet)
Noxious Weeds and Invasive Nonnative Species

Minor short-term impacts and beneficial impacts to the following are expected to occur, and are addressed in the EA:

Infrastructure Improvements: Utility Corridors
Fire: Potential Hazard
Port Orford Cedar Root Rot

The following elements were not present within the project area and therefore not effected:

Soil: Mass Failure	Visual Resources
Cultural Resources	Farm Lands
Land Allotments	Solid and/or Hazardous Wastes
Water Quality	Wetlands
Wild and Scenic Rivers	Wilderness
T & E Species Fisheries (Coho)	
T & E Species Botanical	

Best Management Practices (BMPs) and mitigation measures will be exercised in the execution of this project.

Determination:

On the basis of the above information contained in the EA, and all other information available to me, it is my determination that the Proposed Action does not constitute a major Federal Action significantly affecting the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) is unnecessary and will not be prepared.

/s/ Rich Conrad
Rich Conrad
Myrtlewood Field Manager

June 5, 2002
Date

EA OR 128-02-15
Log Yarding and Skidding



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SECTION 1 - PURPOSE OF AND NEED FOR ACTION

The intent of the proposed action is to gather trees that are down on the ground on two power line right-of-ways on BLM-managed lands and on a separate site, those that have been blown down by high winds. The majority of the trees on the power line right-of-way sites have been on the ground more than a year; the blowdown site consists of solid trees that have been down only a couple of months. These logs are designated for fisheries in-stream restoration projects.

Logs lengths of up to 60 feet, some with root wads attached, are often necessary for restoration projects in larger stream channels. Locating logs of this length is usually difficult unless a whole tree is purchased, which can be very expensive and could therefore greatly limit the extent of individual projects. The restoration project designated for the summer of 2002 is Sandy Creek (T.29S., R10W., Sec.11). Sandy Creek has a relatively wide bank full dimension, averaging 30-35 feet; logs that are longer than the average cut length for milling (32 - 42 feet) are necessary for the large wood habitat restoration project (ODFW, 1995).

Within the Coos Bay District Record of Decision and Resource Management Plan (BLM, 1995), the recommendations for fuels management directs methods of fire hazard reduction to include removal of forest vegetation and debris.

The purpose of the environmental assessment is to:

- ◆ assess any potential environmental impacts that may result from a No Action or Proposed Action decision
- ◆ identify appropriate mitigation measures,
- ◆ document the decision-making process

Additional specialist reports and analysis documents are contained in the analysis file and are hereby incorporated by reference.

Issue Identified, Analyzed, but Not Used to Develop an Action Alternative

The following issue was identified during the EA process:

-Utilizing only a yarding machine to extract all of the logs at all three proposed sites.

Analysis of this issues did not suggest different alternatives, therefore, it was not discussed further in this EA.

The most important reason for skidding versus utilizing the yarding machine is safety: employing cables under tension beneath power lines is extremely hazardous, and therefore, the option of utilizing a yarding machine exclusively on all sites was eliminated, and would only be employed where the yarding cable length is less than the distance from the yarding machine to the material to be yarded. This would ensure that, should a cable break, there could be no chance of the cable coming into contact with the power lines.

Old Camas Log Site

On the Old Camas downed log site, some of the logs nearest the road or on steeper ground may

be yarded, however, skidding on this site was considered as an option because of the proximity of the overhead power lines. Longer distance yarding under power lines exposes the operators at the site to the remote possibility of yarding cable breakage and contact to high voltage wires. Due to the large amount of logs to be gathered at the Camas site and the potential yarding distance, skidding would be considered the most efficient method, saving both time and money and resulting in very little soil disturbance since much of the skidding would be conducted on top of slash.

Frona Log Site

The issue at this log site is excluded from the body of the EA also because at the proposed site near Frona Park, the Coos County Highway Department recommended that extraction of the logs by the yarding machine should be conducted at least two feet outside of the highway white fog line. On that particular section of highway, there is no available turnout wide enough on which to place the yarding machine safely, removing it from traffic hazards while adhering to the County restrictions. Therefore, the stand must be entered and exited via a bladed temporary road onto which the log trucks would be positioned for loading. This road will be situated on the imprint of a road that is somewhat overgrown. Although the yarder can be positioned from this location as well, pulling the logs out of the stand by way of a tracked vehicle would be much quicker, and therefore lower the expense of accumulating and decking the logs. Use of a yarding machine would more than double the time and expense involved for accumulating the logs on both the Frona and the Camas site. If the yarding machine were to be used on the bladed road, there would not only be the additional cost of the construction of the road but also the cost of the slower method of yarding. The power lines are also closer to the ground at this site than at Old Camas. Use of a yarding machine at the Frona site would therefore be a safety concern and although skidding would result in more impacts, those impacts would be short term, skidding would be far less expensive, and there is no risk of contacting overhead high voltage power lines.

The environmental impacts would be similar with yarding as with skidding. Soil impacts would still occur by the dragging or yarding of logs. A road extended into the stand would still be required in either method in order to safely position the log truck out of traffic. There would be slightly more impact from soil compaction by utilizing a tracked vehicle to skid the logs to the deck site where the trucks would be loaded. The skidding would be conducted during the dry season, the smallest tracked vehicle appropriate for the task would be employed to minimize soil compaction, and there is very little vegetative understory on the Frona site that would get impacted.

Gold Brick Log Site

The third site consists of trees blown down adjacent to the 28-11-13.0 (Gold Brick) road. These trees would be yarded since there are no power lines involved and there is a large turnout available on which the yarding machine could park and be out of the roadway.

SECTION II - NO ACTION AND PROPOSED ACTION

Alternative #1 - No Action

Description

The downed trees would remain on the ground at all three sites. The downed logs at the Old Camas site would not be employed within any projects; at this site in particular, the amount of downed debris exceeds the need of wildlife species. Also at this site, there is an increased fire hazard due to the large buildup of fuels; there are viable stands of trees on either side of the corridor and potentially, these stands could be affected if a fire were to ignite. Due to the large accumulation of downed woody material, it is possible that there would continue to be an increase in wood beetle population that could have an impact on the adjacent stands. "Douglas-fir beetles have a one-year life cycle, and the new brood will emerge from the down trees in the spring of the subsequent year. If there are enough of them, Douglas-fir beetles emerging from down logs can infest standing trees"(Goheen, 2000).

In order to implement large wood restoration projects, shorter, less effective cull logs would have to be purchased from local mills. As a result, fewer projects could be implemented and their overall effectiveness and stability may decrease due to the shorter log lengths.

Alternative #2 - Proposed Action

The Proposed Action is to yard, skid and haul approximately 350 logs and 3 root wads with logs attached. To accomplish this, a yarding machine, a tracked vehicle, a lowboy, and self-loading log trucks would be utilized. This is the preferred alternative. The environmental consequences of this alternative should be minimal and would vary somewhat between the three sites.

Old Camas Log Site

The Old Camas log site is located on the BLM road 28-09-17.0 in T.28S., R.9W., Section 17, NW¼ (Fig. 1). This site is an approximate 4.5 acre Bonneville Power Administration (BPA) power line clearance, and the list supplied by BPA estimates that approximately 300 Douglas fir trees were cut down. Not all the trees would be collected; some are culls that would be left at the site, approximately one-third of the logs are too small in diameter, and others would be left to meet or exceed the wildlife requirements for downed wood of 16" dbh at the large end and 120 linear feet in length, 1 tree/acre. (Coos Bay District Resource Management Plan, 1995; p.28). Site visitation estimations indicate that there would be approximately 120 trees that would be identified for removal. Many of those trees would be bucked to lengths of between 40 and 60 feet and skidded or yarded to a designated landing area, therefore, approximately 240 logs or fewer would be skidded or yarded and decked. Logs that are close to the road that may be within reach of a self-loading log truck would be removed by the self-loader. All other logs would then be loaded onto self-loading log trucks and delivered to designated deck sites at Sandy Creek and to storage in the Middle Creek Maintenance shop for future restoration projects.

The majority of the logs, approximately 18 log truck loads, would be hauled to the BLM Middle Creek Maintenance shop, a distance of 18 miles, for storage until the following project season (Fig. 2). Approximately two log loads, about 13 large logs, would be hauled to the Sandy Creek project site in T.29S., R.10W., Section 11 (Fig.1). The distance of haul is about 52 miles. All hauling would be conducted during the dry season on routes that have been sanitized to prevent

the spread of Port Orford Cedar root rot.

Frona Log Site

The Frona log site is located in T.28S., R.11W., Section 11, SE ¼ (Fig. 1) and is adjacent to the Coos Bay Wagon Road. The stand that would be entered to facilitate removal of the downed trees under this power line site is approximately 13.3 acres (although the cleared area from which the downed trees were derived is approximately 2 acres); most of the trees that were cut for power line clearance were on the fringes of the existing cleared power line area. The majority of the trees in the fringe fell into the adjacent stand. All of the logs have been numbered and tallied according to diameter, length and species. There are 34 trees on the ground that would be bucked to various lengths and skidded to a nearby deck site. There would be approximately 68 logs or fewer that would be decked. There is one log with a rootwad attached that would be removed from the site.

The Coos Bay Wagon Road receives frequent traffic in this area. The Coos County Highway Department Access Management and Safety Foreman has been informed of the proposed plan and suggested that all activity associated with the log removal should be conducted approximately two feet outside of the white fog line. There are no available turnouts in the area large enough to accommodate a yarding machine with a placement two feet outside of the white fog line, therefore, it was suggested by the foreman that the shoulder could be altered to form a makeshift road into the stand. This road will be bladed on the imprint of a road that currently exists within the stand and is overgrown. The shoulder would be re-structured to its original form and location at the completion of the project. The re-structuring would be conducted by a 20,000-30,000 pound tracked dozer. The skidding also would be accomplished by the same sized dozer so that efficient maneuverability through the stand without injury to the standing trees is attained. Removal of the root wad with a 50-60 foot log attached would be conducted with the dozer and it would be cabled to the dozer in such a manner that the maximum lift possible would be achieved to minimize ground disturbance.

The stand adjacent to the power line clearance averages a canopy closure of approximately 80-100%. Planting at the completion of log removal from this site would likely achieve very little, since the pre-project condition of this stand reveals that there is little existing understory reproduction due to canopy density.

Many logs would be left on site to accommodate wildlife habitat needs. Trees left on the ground would meet the minimum wildlife requirements for downed wood (16" dbh at the large end and 120 linear feet in length, 1 tree/acre).

Hauling would occur during the dry months and would consist of approximately seven loads: two loads would be hauled to Sandy Creek, a distance of 39.4 miles (Fig. 1); the remaining five loads would be hauled to the BLM maintenance shop in Middle Creek, a distance of less than ten miles, and stored for use in future projects (Fig. 2). Hauling would occur only on sites that have been sanitized to prevent the spread of Port Orford Cedar root rot.

The majority of the site has slopes of 0-5% and is slightly steeper nearer the paved road; no trees would be skidded off of the road prism. The temporary road that would be bladed with the dozer

from the existing road shoulder into the stand (a distance of no more than 100 feet) would be obliterated at the completion of the removal of the logs from this site. The shoulder of the road would be returned to its original conformation. Where appropriate, the skid trails and bladed road would be grass seeded.

Gold Brick Road Blowdown Log Site

This site is located in T.28S., R.11W., Section 13 (Fig. 1) and is adjacent to BLM-managed road 28-11-13.0. The blowdown is also within the Riparian Reserve for the East Fork Coquille River and is within 245 feet of the river. There is seven blown down conifers, two with root wads attached. Therefore, there would be approximately 14 logs that would be yarded off of this site. These trees would be cut to lengths of 50 to 60 feet and yarded to the large turnout that is immediately adjacent to the road and to the stand. Most of the blown down trees are within 40 feet of the road and hence, utilization of the yarding machine is appropriate since no power lines exist overhead at this site. In addition, there is one blown down tree that is approximately 150 feet or less from the road which will be incorporated into this log project.

All of these trees would be hauled to the Sandy Creek project site (Fig. 1) and would consist of approximately four loads: two with a self-loading log truck and two with the lowboy, which would accommodate the logs with root wads attached. The two trees with the root wads attached would be loaded onto a lowboy vehicle that is capable of hauling a sixty-foot log. The trees would be loaded utilizing a dozer to pick up and place one end onto the lowboy at a time. The hauling, which would be conducted during the dry season, consists of approximately 40 miles. Hauling would occur only on routes that have been sanitized to prevent the spread of Port Orford Cedar root rot. The logs would be placed over the edge of the Upper Sandy Creek County Road on the downhill slope (adjacent to the Sandy Creek in-stream project site) adjacent to the corresponding in-stream structure sites.

Design Features and Conservation Practices

- ◆ Project would be implemented in dry weather in order to prevent turbidity from stream crossings during hauling, and to prevent the spread of *Phytophthora lateralis* root rot.
- ◆ Minimize the number of drag and skid routes and yarding with which to gather the logs.
- ◆ Where possible, dozer use would occur on top of slash.
- ◆ Grass seed would be applied to areas with soil disturbance.
- ◆ Wildlife seasonal and/or daily timing restrictions (DTRs) would apply as follows:
 - 1) Between April 1 and September 15, all work would be scheduled no earlier than 2 hours after sunrise and no later than 2 hours before sunset. This restriction applies to the Frona site only, which is within 1/4 mile of unsurveyed suitable marbled murrelet habitat.
 - 2) No work would occur between April 1 and August 5 within the Gold Brick log site only, which is within 1/4 mile of an occupied marbled murrelet site. In addition, between August 6 and September 15, all work will be scheduled no earlier than 2 hours after sunrise and no later than 2 hours before sunset. These restrictions apply to the Gold Brick log site.
- ◆ Minimize roadside sources of weed seed that could be transported to other areas
- ◆ Ensure that weed prevention and related resource protection is considered in travel

- management
- ◆ Heavy machinery would be washed prior to use in this project; machinery would also be washed after use in the Old Camas Log site and before employing the equipment on the other two log sites.
- ◆ Sanitization of Port Orford Cedar (POC) for the approximate 0.7 miles on the 28-9-8.1 and -17.0 roads (associated with the Old Camas Log site) to the Coos Bay Wagon Road on BLM administered lands prior to log haul would consist of the following:
 - 1) On designated timber haul roads and unit landings on BLM-administered lands, including renovated roads and landings: all green POC and Pacific Yew, if found within 25 feet up-slope from the road edge and 30 feet slope distance downhill from the shoulder of the road, would be pulled or cut below the lowest live limb. If cut slopes are greater than five feet in height, POC would be removed only between the road edge and the top of the cut slope.
 - 2) All POC within the Old Camas Log site would be felled within 50' of the proposed log removal area. POC trees that have been felled and are suitable for stream restoration project logs would be removed.
 - 3) Hauling will not occur on the two Old Camas roads (listed above) before sanitation is conducted.
- ◆ Use of heavy equipment utilizing petroleum products is subject to Oregon Forest Practices Petroleum Precautions Rule (ref. OAR 629-57-3600) and Oregon Department of Environmental Quality (DEQ) Spill Prevention, Control and Countermeasures (ref. OAR 340-108). A Spill Plan and Spill Kit are among the requirements for any resultant operations.

SECTION III - AFFECTED ENVIRONMENT

This section describes the baseline environmental components that could be affected by the Proposed Action, if implemented. This section does not address the environmental effects or consequences, but rather serves as the baseline for the comparisons in Chapter IV - Environmental Consequences.

Location

Located in the Southern Oregon Coastal area, the three log sites are located within the East Fork Coquille 5th field watershed (Fig. 3 & 4). Gold Brick Road blowdown log site is located in T.28S., R.11W., Section 13 and is adjacent to BLM-managed road 28-11-13.0 (Fig.7). The Frona log site is located in T.28S., R.11W., Section 11, SE¼ and is adjacent to the Coos Bay Wagon Road (Fig.6). The Old Camas log site is located on the BLM road 28-09-17.0 in T.28S., R.9W., Section 17, NW¼ (Fig. 5).

Land Allocation

Two of the log sites are located within BPA power line corridors in General Forest Management Area (Matrix) land allocations (Fig. 3). The management objectives for this type of land allocation are stated within the Coos Bay District Resource Management Plan (RMP, 1995). Some of the objectives are: to produce a sustainable supply of timber and other forest commodities to provide

jobs and contribute to community stability; to provide down logs that meets the needs of species and provides for ecological functions; and to minimize soil and litter disturbance that may occur as a result of yarding and operation of heavy equipment. The Gold Brick blowdown site is within Riparian Reserves. The RMP directive for Riparian Reserve land allotment is to prohibit or regulate activities that retard or prevent attainment of Aquatic Conservation Strategy objectives.

Fisheries

Old Camas Log Site

This log site extends from mid-slope west to the ridgetop and down the backside (west exposure) for approximately 500 feet for an area that is approximately 4.5 acres. All activity related to this project would be conducted in the power line corridor delineated in figure 5. There are two intermittent streams that are tributaries to the East Fork Coquille that do not have fish presence verified: one which is 400 feet downslope to the east and another on the west side with head waters that begin within the power line corridor. Both streams would likely be dry when this project would be initiated. The nearest perennial stream to the project is 200 feet to the west and is a tributary to the East Fork Coquille (Fig.5). Fish presence within this stream has not been verified.

The East Fork Coquille is the nearest stream with verified fish presence; it is .5 miles from this project log site (Fig. 5). The East Fork Coquille adjacent to the Old Camas log site is above Brewster Gorge; the Gorge is a natural barrier to Chinook and Coho salmon. Winter steelhead occasionally are capable of navigating the gorge when flow conditions permit.

The stand that is adjacent is described as small saw timber 10-21" dbh. The stand is 62 years old and is 70-100% stocked (GIS Database, 2002).

Frona Log Site

This site is situated on an abandoned East Fork Coquille river floodplain. The result of channel simplification from splash damming, road construction, and removal of woody debris are incised channels, dissociated from their floodplains, and dominated by bedrock substrates (East Fork Coquille Watershed Analysis, 2000). Therefore, it would be unlikely that the wood that is currently on the ground at this site would be potential large wood for the East Fork Coquille river.

There are three intermittent stream that exists within this site. They are tributaries to the East Fork Coquille River and are not fishbearing. These streams would not be flowing and the site would be dry when the project is initiated. The nearest coho salmon habitat is approximately .4 miles downstream within the East Fork Coquille. Also, Winter steelhead (*Onchorhynchus mykiss*) can be found within the East Fork; the Oregon Coast steelhead ESU was designated as a Candidate species by the National Marine Fisheries Service in March, 1998. Other species within the East Fork Coquille are Fall chinook salmon (*Oncorhynchus tshawytscha*), coastal and resident cutthroat trout (*Onchorhynchus clarki*), and pacific lamprey (*Lampetra tridentata*), along with several species of sculpins and Cyprinids.

This 72 year-old stand is described as large Douglas fir saw timber, 21" dbh and larger. The stand

is 70-100% stocked (GIS Database, 2002).

Gold Brick Log Site

The blown down logs at the Gold Brick site are within the Riparian Reserve and are approximately 245 feet slope distance from the East Fork Coquille River (Fig.6). There is a perennial tributary to the East Fork Coquille river approximately 100 feet to the west of the proposed log site. Fish presence has not been verified within this tributary.

Seven trees ranging in diameters from 24" diameter breast height (dbh) to 36" dbh are proposed for removal. Two of the seven trees have the rootwad attached, and it is the intention of this proposed project to acquire those trees in their entirety. In addition, there is one tree that is approximately 150 feet downslope. The tree had not fallen within the floodplain of the tributary and is upslope from the Coquille River by 245 feet and therefore would likely not be recruited as large wood into the stream by natural processes. This tree would be yarded to the turnout and incorporated into the project.

Occurring within the East Fork Coquille drainage is the Oregon Coast coho salmon ESU. Also, Winter steelhead can be found within the East Fork. Other species within the East Fork Coquille are Fall chinook salmon, coastal and resident cutthroat trout, and pacific lamprey, along with several species of sculpins and Cyprinids.

The stand is described as containing large saw timber over 21" dbh, with larger trees nearer the road. The trees are approximately 195 years old and is 70-100% stocked (GIS Database, 2002).

Soils

Old Camas Creek Log Site

This area underneath the Bonneville Powerville Administration power lines is composed of two different soil map units that share some similarities. The soils within the east portion are a Preacher-Blachly association on 30 to 60% slopes (44E). The soils within the west portion are Preacher Bohannon loams on 60 to 90% slopes (46F). These two soil types have medium runoff and erosion hazard rates. These soils differ, however, in their water infiltration ability. The Blachly soil type has a moderately slow permeability rating. Water would thus be more likely to run over the surface, eroding soil and acquiring sediment. Sediment delivery to a stream could therefore be more likely on this soil type. The compaction limitation on both soil types indicates that use of tracked instead of rubber-tired machinery on wet soils would generate fewer aftereffects.

Frona Log Site

This area is also composed of several different soil map units. The majority of the project work is on a McCurdy silt loam soil on 3 to 15% slopes (36C); a minor amount of work will be associated with a Wintley silt loam on 8 to 15% slopes (63C). Permeability of the McCurdy loam is moderately slow. There is a limiting water table in November through April at a depth of 24-36 inches. The main limitations of the soil are: compaction when wet and droughty summer conditions. Permeability of the Wintley soil is moderately slow and the main limitations of the surface layers are: compaction, droughty summer conditions.

Gold Brick Log Site

The soil that could be impacted at this project site is a Blachly silt loam on 30 to 50% slopes (4D). It also has a moderately slow permeability rate, high runoff rate and high erosion hazard. Soil limitations are: susceptibility to compaction, erosion hazards while on steep slopes.

Wildlife

Wildlife coverages in ArcView were searched for known northern spotted owl, marbled murrelet, bald eagle, golden eagle, peregrine falcon and osprey nest sites within the vicinity of the proposed project sites. The project is absent for Threatened and Endangered species.

Botany

No threatened or endangered (T & E) plants occur in or near any of the project areas. The Gold Brick and the Camas sites lack suitable habitat for any Survey and Manage (S & M) or special status plants (including Oregon Natural Heritage Program 2001 list 1 and 2 species, also called BLM Bureau Sensitive and Bureau Assessment species respectively) known to occur in this area. thus, they were not surveyed. Appendix A has a list of all T & E, S & M, and special status known or suspected to occur in the Myrtlewood Resource Area.

The Frona log site is located in a power line corridor. The blowdown logs would need to be skidded a few hundred feet through a stand of approximately 120 year-old Douglas-fir. This stand contains habitat for S & M and special status plant species. It was surveyed on 13 May 2002 by Tim Rodenkirk, Sam Friedman, and Darina Roediger. The stand description is as follows: the overstory is primarily composed of Douglas-fir (*Pseudotsuga menziesii*) with a few scattered western red-cedar (*Thuja plicata*). The understory is dominated by myrtlewood (*Umbellularia californica*), with dense patches of vine maple (*Acer circinatum*), and a few small cascara (*Frangula purshiana*) and hazels (*Corylus cornuta* var. *californica*). The shrub layer is dominated by scattered evergreen (*Vaccinium ovatum*) and red huckleberry (*V. parviflorum*), sword fern (*Polystichum munitum*), and poison oak (*Toxicodendron diversilobium*).

Survey and Manage & Special Status Species

No special status plants were encountered on the Frona blowdown log site during the survey. One S & M Category "A" lichen species was encountered, *Ramalina thrausta*. This species was found throughout the stand as litterfall on branches and twigs of Douglas-fir and on several of the understory shrub species. It is likely growing in the canopy of the larger overstory Douglas-fir trees throughout the stand. Category "A" S & M species are considered rare and known sites are required to be managed for persistence of the species.

The Coos Bay District has developed a procedure for protecting known S & M non-vascular plant sites (Brian et al. 2002). In this case, the site would not need protection. The S & M lichen species is growing in the canopy of the overstory of the stand. No overstory trees would need to be cut to facilitate removal of the logs from the power line corridor. Only understory vegetation would be impacted where the logs would be skidded through the stand.

Port Orford Cedar and Phytophthora

No Port Orford Cedar (POC) was found at the Gold Brick Road Blowdown Log site nor at the Frona Log site; the haul routes from these log sites also did not contain Port Orford Cedar.

POC was found along the 28-9-8.1 and the 28-9-17.0 roads, which are roads associated with the Old Camas Log site. A roadside infection of *Phytophthora lateralis* root rot (PL) was found on the downhill side of the 17.0 road, prior to the location of the log removal site; further infections are present along the road past the project area. These infections likely initially occurred from an adjacent private timberland harvest in 1995 during timber hauling under the terms of a reciprocal right-of-way agreement. These roads are presently considered to be infected with PL.

Noxious Weeds

Noxious weed populations are low on the project sites. The Old Camas site is devoid of vegetation underneath the utility corridor, and therefore, the noxious weed population is low or non-existent on that site. The Frona Log site has a moderate population of Himalayan blackberry (*R. Fruticosus*, *R. procerus*), but light to no populations of broom species (*C. scoparius*, *C. monspessulanus*) located in the vicinity. The Gold Brick Blowdown Log site has low to non-existent populations of noxious weeds. Overall site risk condition class is low on both Camas and Gold Brick and moderate on Frona. However, due to vigorous recovery of blackberries following disturbance and the potential seed bank, this project site is not considered to be within a high priority area for noxious weed prevention.

Cultural Resources

Class I inventory (review of project documentation and records check) shows no known cultural resources in the immediate vicinity of these three log sites.

Hazardous Materials / Solid Wastes

Sites under consideration have been screened by project personnel for the existence of hazardous substances and solid wastes. None have been observed. Any subsequent discoveries will be handled under the district Contingency Plan for Hazardous Materials.

SECTION IV - ENVIRONMENTAL CONSEQUENCES

This section describes the scientific and analytical basis for the comparison of the alternatives as they relate to differentiating factors of each proposed log site, and the probable consequences as they relate to the alternatives. The environmental consequences to critical elements of the human environment (Table 1) were considered within each alternative.

Table 1: Environmental consequences to the critical elements of the human environment

Critical Element of the Human Environment	Present in Project Area	Affected by No Action	Affected by the Proposed Action	In EA	Analyzed, Not in EA
Physical Factors					
Soils:					
Productivity:	Yes	No	Yes	Yes	N/A
Capability:					
Erodibility	Yes	No	Yes	Yes	N/A
Mass Failure	No	No	No	N/A	N/A
Visual Resources	No	N/A	N/A	N/A	N/A
Air Quality	Yes	No	No	N/A	N/A
Cultural Resources	No	N/A	N/A	N/A	N/A
Land Use:					
Farm Lands	No	N/A	N/A	N/A	N/A
Land Allotments:	No	N/A	N/A	N/A	N/A
Riparian Reserves	Yes	No	Yes	Yes	N/A
Infrastructure Improvements:					
Roads	Yes	No	Yes	Yes	N/A
Utility corridors	Yes	Yes	Yes	Yes	N/A
Wastes: Solid or Hazardous	No	N/A	N/A	N/A	N/A
Water Resources:					
Wetlands	No	N/A	N/A	N/A	N/A
Water Quality	No	N/A	N/A	N/A	N/A
Floodplains	Yes	No	Yes	Yes	N/A
Fire: Potential Hazard	Yes	Yes	Yes	Yes	N/A
Wild & Scenic Rivers	No	N/A	N/A	N/A	N/A
Wilderness	No	N/A	N/A	N/A	N/A
Social Factors:					
Native American Religious Concerns	No	N/A	N/A	N/A	N/A

Table 1 (cont.): Environmental consequences to the critical elements of the human environment

Biological Factors:					
Port Orford Cedar Root Rot	Yes	Yes	Yes	Yes	N/A
Survey & Manage Species	Yes	No	Yes	Yes	N/A
T & E Species Fisheries (Coho)	No	N/A	N/A	N/A	N/A
T & E Wildlife Species (Marbled Murrelet)	Yes	No	No	Yes	N/A
T & E Wildlife Species (Spotted Owl)	No	N/A	N/A	N/A	N/A
Vegetation :					
Noxious Weeds	Yes	No	No	Yes	No
T & E Species (Botanical)	No	N/A	N/A	N/A	N/A

Old Camas Log Site

The environmental consequences of accumulating logs from this site are minimal. Skidding would be conducted on existing slash during the dry season. About a dozen of the logs would be extracted with the arm of the self-loading log truck from the road. Some of the logs would be yarded from the site where appropriate, however, because the site was entirely cleared of vegetation and trees, tailhold trees to accomplish lift during yarding are not available in many of the preferred yarding angles. There is also the safety issue of overhead power lines, however, in the lower portions of the site, the power lines are higher overhead. Therefore, yarding may be utilized in the lower portion where tailhold trees are available and power line safety issues are addressed.

Frona Log Site

The environmental consequences of accumulating logs from this site are greater than for the other two sites but are still relatively minimal. Hauling would be conducted during the dry months, as would the skidding and the blading for the road into the stand. Although ground disturbance would occur from dozer tracks, road blading and log skid trails, little understory vegetation would be impacted; the stand is densely stocked with conifers and hardwoods and there is only sparse vegetation underneath. The temporary road to be bladed would be placed over the imprint of an existing road that is overgrown with vegetation. There are three small seasonal non-fishbearing streams that flow through a portion of the east segment of the site. The stream banks and channels would not be disturbed.

Gold Brick Log Site

The environmental consequences of accumulating logs from this site are the least of the three sites proposed in this project. The majority of the trees, about seven, are close to the road; there would be no skidding utilized to obtain the logs from this site. The yarding machine would be parked in a large turnout, hence, traffic concerns are minimal. There are no power lines overhead at this site, so yarding is appropriate and most expeditious with fewest impacts. Logs would be cut to appropriate lengths and yarded out of the stand to the turnout; there would be about 14 logs.

Evaluation of Consistency with East Fork Coquille Watershed Analysis - Proposed Action

Watershed analysis has a critical role in providing for aquatic and riparian habitat protection by consideration of the state of the channel and riparian area, “condition of the uplands, distribution and type of seral classes of vegetation, land use history, effects of previous natural and land-use related disturbances, and distribution and abundance of species and populations throughout the watershed” (ROD, B-20). The information from watershed analyses contributes to decision-making: priorities for funding, implementation of projects, and development of monitoring strategies and objectives.

There is very little or no guidance provided for managing power line right-of-ways within Riparian Reserves. In addition, there is no direction for managing the corridors with regards to removal of downed material.

In order for the in-stream restoration projects to be conducted, sources of large wood need to be identified. Often, large wood that is over 40 feet in length is not available for in-stream projects, or the cost of purchasing longer pieces makes the project infeasible. With this proposed action, in-stream restoration projects for the year 2002, 2003 and 2004 have an increased likelihood of occurring and functioning most effectively.

Evaluation of Consistency with Northwest Forest Plan Standards and Guidelines

The project would comply with the Standards and Guidelines of the ROD for the Northwest Forest Plan for General Riparian Area Management.

Also, direction for habitat improvement projects “for fish, wildlife, or watersheds should be considered if they provide late-successional habitat benefits or if their effect on late-successional associated species is negligible”(Standards and Guidelines, C-17).

The project would comply with the Standards and Guidelines of the ROD for the Northwest As discussed in ‘Consistency with the Aquatic Conservation Strategy’ (below), it was determined that the Proposed Action would not retard or prevent attainment of ACS objectives.

Evaluation of Consistency with the Aquatic Conservation Strategy - Proposed Action

“Complying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian-dependent resources to maintain the existing condition or implement actions to restore conditions” (Record of Decision, Basis for Standards and Guidelines, ppb-10, 1994). This project would directly maintain existing conditions of the intermittent streams associated with the down large wood sites. All channels would be buffered and no wood would be removed within the channel; wood adjacent to the channel and providing bank or soil stability would also be left in place. Indirectly, this project would promote the placement of large in future restoration projects due to cost and ease of availability. The addition of wood would aggrade the channel, provide spawning habitat, and reconnect the channel with the floodplain, as it existed prior to large wood removal from the channel. Under the Aquatic Conservation Strategy, Riparian Reserves “confer benefits to riparian-dependent and associated species other than fish, enhance habitat conservation for organisms that are dependent on the transition zone between upslope and riparian areas, improve travel and dispersal corridors for many terrestrial animals and plants, and

provide for greater connectivity of the watershed” (ROD, pp. B-13).

The proposed project was determined to be consistent with Watershed Analysis recommendations and findings, applicable Northwest Forest Plan Standards and Guidelines, and applicable aspects of NMFS’ March 18, 1997 Biological Opinion. In addition, the proposed project would not hinder or prevent attainment of Aquatic Conservation Strategy objectives at the 5th field watershed scale over the long-term.

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and the aquatic ecosystems contained within them on public lands. The strategy provides for protection and enhancement of salmon and steelhead habitat on lands managed by the Forest Service and Bureau of Land Management within the range of Pacific Ocean anadromy (Record of Decision (ROD), Standards and Guidelines, p. B-9). This project would be considered as one of the components of “watershed restoration”, which is one of the four major components of the ACS. As stated within the ROD ACS, restoration of in-stream habitat complexity is one of the most important components of watershed restoration. With this proposed project, the logs would then be available to meet the objectives of large wood restoration projects.

Consistency with the Aquatic Conservation Strategy -No Action

The ‘No Action’ alternative would not hinder attainment of Aquatic Conservation Strategy objectives. The objectives give direction to “maintain and restore”. No direct aquatic-based effects would occur if the no action is implemented. Indirectly, it could potentially hinder ACS by not providing large wood for in-stream restoration projects that could contribute to attainment of connectivity to floodplains (ACS #2), maintain and restore the physical integrity of the aquatic system (#3), maintain and restore the timing, variability, and duration of floodplain inundation (#7) and maintain and restore amounts and distributions of coarse woody debris (#8).

NO ACTION

Fisheries

Direct and Indirect Effects

There are no direct effects on fisheries from the ‘no action’ alternative. However, there are a couple of very obvious predominant indirect effects. One effect is that fewer in-stream restoration projects would likely be completed. The cost per log for the Sandy Creek in-stream project plus future in-stream projects utilizing the 336 logs would be 40% more than if the proposed alternative was initiated. This figure compares the logs taken off of the proposed sites with purchased and delivered cull logs which would be between 30 and 42' in length. While several of the logs that would come off of the proposed log sites are cull, in many instances they would be longer than 42'; the cost for the project includes the expense of gathering, loading, hauling and unloading three rootwad/log combinations, which, because of their weight, size and structure, would be integral parts of the Sandy Creek project. Longer 50' foot logs with larger diameters that would come from the proposed project sites would be appropriate to place within a larger stream such as Sandy Creek. Shorter logs such as the culls that could be purchased would be less effective and would have a greater possibility of dislodging from the structure site.

Cumulative Effects

Fewer in-stream restoration projects completed translates into less spawning and/or overwintering habitat improvement within the next couple of years. Potentially, this could result in continued habitat limitations. Also, large wood provides cover; less wood in the stream could conclude in higher juvenile mortality due to predation.

The large accumulation of logs that are on the ground at the Old Camas log site could also present an increased risk of fire. Also, if the logs are left at this site, there could be a higher risk of wood beetle infestation into the adjacent stand.

Soils

Direct, Indirect and Cumulative Effects

No detrimental impacts to soil resources are expected from this action over the long term.

Wildlife

Direct, Indirect and Cumulative Effects

Due to the absence of the northern spotted owl, marbled murrelet, bald eagle, golden eagle, peregrine falcon and osprey nest sites within the proposed project sites, the 'no action' alternative will have no effect on these species.

Botany

Vascular Plants - Direct and Indirect Effects

There are no direct or indirect effects on botanical resources from the 'no action' alternative.

Vascular Plants - Cumulative Effects

There are no cumulative effects on botanical resources from the 'no action' alternative. The downed Douglas-fir (*Pseudotsuga menziesii*) trees would eventually decompose and become substrate or habitat for vascular plant species.

Non-Vascular Plants - Direct and Indirect Effects

There are no direct or indirect effects on botanical resources from the 'no action' alternative. The S & M Category "A" lichen species, *Ramalina thrausta*, would persist at the Frona site.

Non-Vascular Plants - Cumulative Effects

There are no cumulative effects on botanical resources from the 'no action' alternative. The downed Douglas-fir (*Pseudotsuga menziesii*) trees would eventually decompose and become substrate or habitat for non-vascular plant species.

Port Orford Cedar and Phytophthora

Direct, Indirect and Cumulative Effects

Overall, this alternative will have no effect on the POC population. There are currently many healthy populations of POC in numerous low-risk sites; the continued potential for Phytophthora to travel outside of a high risk area (50 feet within roads and streams) and infect POC in low-risk sites will continue since POC is a prolific seeder.

Noxious Weeds

Direct, Indirect and Cumulative Effects

Current noxious weed populations on the project site would continue to increase if left untreated.

Cultural Resources

Direct, Indirect and Cumulative Effects

Due to the lack of recorded cultural resources at the log sites, the 'no action' alternative will have no effect.

Hazardous Materials

Direct, Indirect and Cumulative Effects

None anticipated under this alternative.

PROPOSED ACTION

Fisheries

Direct and Indirect Effects

Old Camas Log Site

There are no fishbearing streams within the Old Camas proposed log site, however, there is one intermittent stream with fish presence not verified whose headwaters are within the 4.5 acre log site/power line corridor. There is one other intermittent stream near the site but outside of the power line corridor. Neither of these have fish presence verified. The nearest perennial stream to the project is 200 feet to the west and is a tributary to the East Fork Coquille (Fig.2). Fish presence within this stream has not been verified.

The East Fork Coquille is the nearest stream with verified fish presence; it is .5 miles north from the project. The East Fork Coquille adjacent to the Old Camas log site is above Brewster Gorge; the Gorge is a natural barrier to Chinook and Coho salmon. Winter steelhead occasionally are capable of navigating the gorge when flow conditions permit. Fish that would be within the East Fork Coquille nearest to the proposed project site and during the project timeframe (June-September) would be juvenile and pre-smolt steelhead, cutthroat trout, cyprinids, sculpins and lamprey. The nearest listed fish is approximately six miles downstream in the Coquille below Brewster Gorge.

This project would not impact any of these streams. The intermittent stream that is in the corridor, although technically within a Riparian Reserve, cannot be managed as directed in the RMP, nor are Aquatic Conservation Strategy objectives applicable; no vegetation or tree species are permitted to interfere with power line clearances. Logs that are in the channel of this stream and those that provide soil and bank stability directly adjacent to the channel would be left; logs that would enter the channel during a debris flow would also be left. No heavy machinery would be permitted within the channel of any stream. Aquatic Conservation Strategy objectives would be maintained.

Skidding would be performed on top of the slash that is currently on the ground. The slopes on this site range from 30%-35%; the slash would be left on the ground to assist in sediment control and prevent soil compaction. Some logs that are near the road can be reached with the

arm/grapples of a self-loader log truck. Any yarding that is utilized to obtain logs that are near the road would not have the concern of the yarding cable injuring adjacent trees. The concern would be that any cables utilized should be shorter than the distance from the power lines overhead to the ground. This would ensure that breakage of any of the cables under tension could not come in contact with power lines at any time.

Hauling would occur during the dry season. One of the haul routes would consist of approximately 52 miles from the log site to the southern-most end of the project site at Sandy Creek by way of the Coos Bay Wagon Road, out to Myrtle Point and east on Highway 42 to Sandy Creek county road. Two loads would be hauled to Sandy Creek, or about 13 logs. Although there is a shorter route to Sandy Creek, that route, however, has not been sanitized to prevent the possible spread of Port Orford Cedar root rot. The remaining 18 loads of logs that will come off of this site will be hauled to Middle Creek Maintenance Shop, a distance of approximately 18 miles.

The offloading of the logs at Sandy Creek will be accomplished by the self loading log truck. The logs will be placed perpendicular to the slope on the downhill side, nearest the structure site in which it would be utilized. Some vegetation may get crushed with this log placement, however, it is expected that this impact would be short term and that the vegetation would recover quickly. The offloading of the rootwad/log combinations at Sandy Creek would encompass the use of a lowboy with hydraulic lift to roll the log/rootwad off of the bed of the truck or the unloading of the lowboy with heavy equipment. The equipment would manipulate the log/rootwad onto the downhill slope adjacent to the appropriate structure site. The unloading of the logs at the Middle Creek Maintenance Shop consists of the self-loading log truck unloading and stacking the logs in the designated area inside the compound.

Frona Log Site

There are no fishbearing streams within the Frona proposed log site, however, there is one second-order intermittent stream that is expected to be dry at the time of project initiation. The nearest verified fishbearing stream to the Frona site is the East Fork Coquille, which is approximately 1,500 feet to the northwest. There would be no delivery mechanism for sediment; the intermittent stream would be dry and this site is flat. Any moist areas that may remain at the time of project initiation would be avoided.

During log skidding by the small tracked dozer, ground disturbance would be minimized by limiting the number of passes on one path and skidding the maximum number of logs feasible at one time while continuing to achieve one end lift.

One of the fish that would be present within the East Fork Coquille nearest to the proposed project site and during the project time frame (June-September) would be juvenile and pre-smolt Winter steelhead. Juvenile and pre-smolt coho salmon would also be present. Other species within the East Fork Coquille are searun and resident cutthroat trout, and pacific lamprey, along with several species of sculpins and Cyprinids. Juvenile Fall chinook salmon would be migrating to the estuary and ocean as late as mid-June and therefore may be present at the time of the project within the East Fork Coquille. However, because there is no delivery mechanism for sediment, turbidity would not be a factor and therefore, there would be no effect on aquatics as a result of

this project.

This project would also not physically impact any of these streams. The intermittent stream that is in the log site would be buffered; logs that are in the channel of this stream and those that provide soil and bank cover and/or stability directly adjacent to the channel would be left. No heavy machinery would be in the channel at any time. This entire project would avoid impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

Formation of the short road into the stand from the shoulder of the Coos Bay Wagon road would be as fundamental as possible. The road would be cut with a small dozer (20,000-30,000 pound) and would have no improvements. It would be constructed over the imprint of an existing road that is currently overgrown with vegetation. The shoulder would be re-structured to its original form and location at the completion of the project. The skidding also would be accomplished by the same sized dozer so that efficient maneuverability through the stand without injury to the standing trees is attained. Removal of the rootwad with a 50-60 foot log attached would be conducted with the dozer and it would be cabled to the dozer in such a manner that the maximum lift possible shall be achieved to minimize ground disturbance.

Logs will be skidded to a deck site near the unimproved road built by the dozer. They would then be stacked near the road to minimize the extent of soil disturbance. Logs would be hauled by self-loading log trucks which would utilize the road into the stand; logs would be All hauling would occur during the dry season, therefore, there would be no mechanism for delivery to any stream. Traffic control would be in place during all entering and exiting of the stand. The haul route to Sandy Creek (approximately 40 miles) consists mostly of paved roads. Only about four miles of the route is unpaved. The haul route to the Middle Creek Maintenance Shop is less than 10 miles, 2 miles of which is on a paved road. Offloading of the logs at Sandy Creek has been described above in the 'Old Camas Log Site' paragraphs, and is also described below in the 'Gold Brick Log Site' narration.

Gold Brick Log Site

This site is within a Riparian Reserve for the East Fork Coquille river. Only yarding would be conducted at this site. Several of the trees are near to the road, adjacent to a large turnout. Therefore, it would be probable that some of the logs would be loaded by just a self-loading log truck. The yarder would be able to be placed safely out of traffic obstruction, and there are no impediments overhead that would make yarding infeasible.

There is a perennial tributary to the East Fork Coquille river approximately 100 feet to the west of the proposed log site. Fish presence has not been verified within this tributary. No streams would be impacted by this action. The slope gradients range from 6%-10%.

All but one of the blown down trees are within 60 feet of the turnout. Seven trees ranging in diameters from 24" diameter breast height (dbh) to 36" dbh are proposed for removal. Two of the seven trees have the rootwad attached, and it is the intention of this proposed project to acquire those trees in their entirety. In addition, there is one tree that is approximately 150 feet downslope. The tree had not fallen within the floodplain of the tributary and would likely not be recruited as large wood into the stream by natural processes. This tree would be yarded to the

turnout and incorporated into the project.

This proposed project is 245 feet upslope the East Fork Coquille river; occurring within that drainage is the Oregon Coast coho salmon ESU, which encompasses the range of this species north of Cape Blanco, were listed as a Threatened species by the National Marine Fisheries Service in August, 1998. Juvenile and pre-smolt coho salmon would be present within the Coquille during the timeframe (June-September) of this project. Also present would be juvenile and pre-smolt Winter steelhead; the Oregon Coast steelhead ESU was designated as a Candidate species by the National Marine Fisheries Service in March, 1998. Other species within the East Fork Coquille are searun and resident cutthroat trout, and pacific lamprey, along with several species of sculpins and Cyprinids. Juvenile Fall chinook salmon would be migrating to the estuary and ocean as late as mid-June and therefore may be present at the time of the project within the East Fork Coquille. However, because there is no delivery mechanism for sediment, turbidity would not be a factor and therefore, there would be no effect on aquatics as a result of this project.

Loading of the logs and rootwads onto a lowboy would be conducted by a dozer within the turnout area. All logs from this site would be transported to Sandy Creek, a distance of approximately 40 miles. The off-loading of logs at Sandy Creek would be conducted by the self-loading log truck that could place the logs off the road on the slope adjacent to the corresponding structure site. The off-loading of the root wad and log combinations would be conducted by the lowboy that would be hauling it to Sandy Creek by use of a hydraulic bed that tilts. Off-loading may also be accomplished by a dozer. The off-loading of both the logs and the combination log/root wads would not be expected to have a substantial direct or indirect effect; some crushing of vegetation would occur, however, these effects would be expected to be short term.

Cumulative Effects

In the short term, it is possible that with the additional logs in storage, more in-stream restoration projects may be completed; the cost savings could be utilized for in-stream contracts for log placement. As a result, aquatic habitat improvement may move forward at a slightly accelerated rate which may provide better spawning habitat and complexity sooner.

Also in the short term, some soil disturbance from skidding the logs would be expected, particularly at the Frona site. Since the skidding at the Camas site is conducted on slash, soil disturbance would be minimal. All skid trails that result in exposed soil as a consequence of either dragging the logs or impacts by the tracked dozer would be grass seeded at the completion of the project. Therefore, no substantial sediment resulting from soil disturbance would be expected.

Effects from unloading the logs at Sandy Creek may consist of limited amounts of crushed vegetation. The logs will be placed parallel to the slope so that the logs would not be expected to roll, however, in a few of the areas adjacent to structure sites at Sandy Creek, the slopes are steep and some logs may slide downslope when unloaded.

In the long term, the logs from this project would have been utilized in the seasons prior. Additional log sources would need to be identified for aquatic restoration employing large wood to continue. In-stream projects that were conducted using the wood accumulated from this

project would have demonstrated varying degrees of aquatic habitat enrichment.

Soils

Direct and Indirect Effects

Old Camas Site

The direct impacts to this site would be from the removal of the trees, both by utilization of a drum-based cable yarding machine and by a tracked dozer conducting ground-based skidding. The potential of compacting the skidding trails and areas under the cat is slight due to the slash available by which to cushion and disperse the weight of the machine during operation. All of the soils at the sites have slow permeability rates that lead to high runoff situations, however, only the soil at this site has the compaction potential which could effect water runoff rates. Operation on slash would prevent compaction from reaching that potential.

Indirectly, there may be fine sediment delivery from the landing and loading area delivered to the stream during the coming winter. There is a vegetative buffer below the 28-09-17.0 road to filter sediment from overland runoff but concentrated runoff from ditches and landings may be delivered with the first several large storm events of the season. This impact, however, should be minimal.

Frona Log Site

The direct impacts to this site consist of: compaction of the loading area, the skidding of the logs to the loading area, and the surface disturbance created by yarding the logs. The soils in this area have a moderately slow rate of permeability, thus, any increase in the amount of compaction on these soils could produce more runoff. This action intends to use existing roads that are currently overgrown; it is anticipated, therefore, that additional compacting of these roads would not be a problem. Disturbance to the surface of the soil would occur during skidding, however, the size and number of passes would not detrimentally increase the level of compaction to the degree in which accelerated runoff would occur. Regrowth of vegetation on the skid trails is expected within two years, which would shield soil from erosion caused by precipitation events. The slopes are gentle, therefore, all fine sediment derived from this action would be contained on site. The permeability rates should be high enough to capture such sediment.

There are no anticipated indirect impacts from this action. Hauling will occur on a paved road and all loading will occur on site in a forested environment.

Gold Brick Site

The direct impact of removing the trees from this site are the yarding corridors created by the extraction process. There is little opportunity to increase the lift during the yarding; dragging the trees up the hill for the short distance may nonetheless gouge the soil and displace the surrounding vegetation. However, due to the few number of trees on this site and the short distance required to yard them, little to no impact should result from this action. All fine sediment created on the yarding tracks will be retained on site.

Cumulative Effects: All Sites

There are no long term cumulative effects expected to the soil resources. The removal of material from under the power lines is an ongoing function of the utility and the environment is altered in

that area for the duration. Processes that normally occur in a forest stand do not take place in the utility corridor.

Wildlife

Direct, Indirect and Cumulative Effects

Due to the absence of the northern spotted owl, marbled murrelet, bald eagle, golden eagle, peregrine falcon and osprey nest sites within the proposed project sites, the 'proposed action' alternative will have no effect on these species. Wildlife restrictions for this project are located within 'Design Features and Conservation Practices'.

Botany

Vascular Plants - Direct and Indirect Effects

There are no habitat or known occurrences of T & E, special status, or S & M vascular plant species at any of the sites. Short-term damage to the existing vegetation would be caused by skidding logs to loading sites. Damage would be ephemeral and the vegetation would quickly recover.

Vascular Plants - Cumulative Effects

There would be no cumulative effects on the vascular plant community. The initial disturbance created by log removal would be short-lived as vegetation would quickly recover at each of the sites.

Non-Vascular Plants - Direct and Indirect Effects

Skidding and loading logs would have minimal impacts on non-vascular plant species at the Gold Brick and Old Camas sites.

Non-Vascular Plants - Cumulative Effects

Damage from loading and skidding logs would be localized and ephemeral at all the sites. The non-vascular plant community would recover within a few years.

Survey and Manage & Special Status Species

Direct, Indirect and Cumulative Effects

The Frona site has no threatened or endangered or special status plant species. However, there is one S & M, Category "A" lichen species present, *Ramalina thrausta*. Removal of the downed Douglas-fir trees from the Frona sites would not affect *Ramalina thrausta* as it occupies the canopy branches of the older Douglas-fir trees in this area. None of these trees would need to be cut in order to skid the logs through the stand. There are very few non-vascular plant species actually growing on the ground in the Frona stand. Damage to non-vascular plant species would be minimal.

Port Orford Cedar and Phytophthora

Direct, Indirect and Cumulative Effects

If the sanitation directions provided under 'Design Features and Conservation Practices' for reducing the spread of PL is followed, the proposed action should have no effect on the continued existence of POC as a species. The proposed action will actually reduce the likelihood of PL extending into uninfected POC on the roads adjacent to the Old Camas Log site (28-9-8.1 and 28-

9-17.0).

Noxious Weeds

Direct, Indirect and Cumulative Effects

The project has the potential to increase noxious weed populations. Only a single species is currently present on the project site, however, the project may increase the diversity of noxious weed species which may further degrade the health of the local plant community.

Recommendations for prevention of the spread of noxious weed species are as follows:

- ◆ Remove seed source that could be picked up by passing vehicles and limit seed transport into relatively weed-free areas at moderate or high ecological risk
- ◆ Retain shade to suppress weeds
- ◆ Re-establish vegetation on all bare ground to minimize weed spread
- ◆ Minimize sources of weed seed in areas not yet re-vegetated
- ◆ Ensure establishment and maintenance of vigorous, desirable vegetation to discourage weeds
- ◆ Minimize roadside sources of weed seed that could be transported to other areas
- ◆ Ensure that weed prevention and related resource protection is considered in travel management

Cultural Resources

Direct, Indirect and Cumulative Effects

The lack of recorded cultural resources and location of these log sites indicate intact cultural resources will not be affected by this project. If potential cultural resources are encountered during this project, all work in the vicinity should stop and the District Archeologist must be notified at once.

Hazardous Materials

Direct, Indirect and Cumulative Effects

Providing there are no spills or releases of petroleum products or hazardous substances to the environment, no effects are anticipated under action alternative(s).

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APPENDICES REFERENCED

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